

The  
of Art  
science

by Greg Keighery and Verna Costello



The Western Australian Botanical Artists Group has recently celebrated its 10th Anniversary with the largest display yet at the annual Kings Park Wildflower Festival. But what is the relevance of this art form in today's high technology world? You'd be surprised . . .



**P**hotography, both still and moving, is currently the major means by which we gain an appreciation of the natural wonders of our State in books, magazines, film, video and slide collections. It has immediacy, and is able to portray the colour, wonder and harshness of our land in an instant. However, in scientific study, especially classification of living organisms (taxonomy), and field guides, the artist and illustrator still reign. Why is this so?

Western Australia has a long history of botanic artists and scientific illustrators who have successfully combined art and scientific accuracy. This combination is the key to the endurance of this art in science. The camera may not lie, but it cannot replace a trained eye.

Botanic artists and illustrators can portray the salient features of a plant that make it instantly recognisable to a lay person, together with the key features that are used by taxonomists to separate plant species. These features are used in scientific descriptions or in

**Below:** Sea urchin hakea by Edgar Dell, as it appeared in *Wildflowers of Western Australia*.

**Below right:** A 1933 watercolour of a scented sun orchid, with associated pencil sketches. Illustration by Rica Erickson

**Below far right:** The frontispiece to the publication *Plants of Prey*, featuring a pitcher plant and rainbow plant. Illustration by Rica Erickson



**Previous page**  
Pincusion hakea.

**Left:** Queen of Sheba orchid (*Thelymitra variegata*) with detailed key features. Illustrations by Ellen Hickman

**Above:** Ellen Hickman at work in the 'BAGS' tent at the Kings Park Wildflower Festival. Photo – Verna Costello

field guides or botanical keys such as Blackall and Grieve's five-volume *How to Know Western Australian Wildflowers*, which contain more than 4,000 illustrated species and 20,000 line drawings. These books' use of accurate drawings of the key features of our native and naturalised flowering plants have revealed the marvellous flora of south-western Australia to generations of budding and established botanists and wildflower enthusiasts in a way that words never could.

The importance of accuracy in these line drawings and illustrations cannot be overemphasised. For example, an artist may decide to reduce or increase

the number of a plant's petals for aesthetic reasons. But such artistic licence is not appropriate in scientific illustrations, as the number of petals could be crucial in identifying the plant or species and in distinguishing one from another.

The first WA plants to be scientifically illustrated were those collected by William Dampier in 1699 (see 'Our Largest Island' on page 16). The illustrations (by an unknown artist) were published in 1703. But perhaps the most significant historical illustrations of WA plants were made by the renowned Ferdinand Bauer, who worked closely with botanist Robert

*Berberis in Cradle*





*Dryandra tenuifolia* var. *reptans* A.C. George

Brown on Matthew Flinders' visit to WA in 1801. Bauer's representations of our flora are some of the most accurate and beautiful. The originals are now held in the British Natural History Museum.

The earliest botanic artists were colonial women painters such as Margaret Forrest. In the 1920s, artists such as Emily Pelloe, who painted arrangements of native flowers, produced popular accounts of the flora. She was followed by Edgar Dell, whose paintings appeared first in the *Western Mail* and were then used extensively in the series of books entitled *Western Australian Wildflowers* from 1935. Edgar's paintings of individual flowers are both scientifically accurate and a work of art in themselves.

After World War II, the first major figure to appear was Rica Erickson. A self-taught artist and member of the WA Botanical Artists Group, Rica produced several books on native plant groups, including *Orchids* (1951), *Triggerplants* (1958) and *Plants of Prey* (1968). These books are more botanical than those of the earlier-mentioned artists. Another notable artist to emerge post-war was botanist Charles Gardner. His fine pen and ink drawings can be seen in his books on grasses and poison plants, published between 1950 and 1960.

**Above:** *Dryandra tenuifolia* var. *reptans* with fruit and floral parts.

**Above right:** *Pelargonium havlasae* with floral parts.  
Illustrations by Margaret Pieroni

**Right:** The triggerplant *Stylidium humphreysii* with floral parts.  
Illustration by Philippa Nikulinsky



*Pelargonium havlasae* Simon

### 'BAG' LADIES

With the abundance and variety of Western Australian wildflowers, it is not surprising that a wealth of talented botanic artists have honed their skills on the State's unique and diverse flora. Such is the passion for their art, and for Western Australia's wildflowers, that members of the Botanical Artists Group—or 'BAG ladies', as its six artists like to refer to themselves—work alongside botanists to learn more about the morphology

(the form and structure) of plants and its significance in different species.

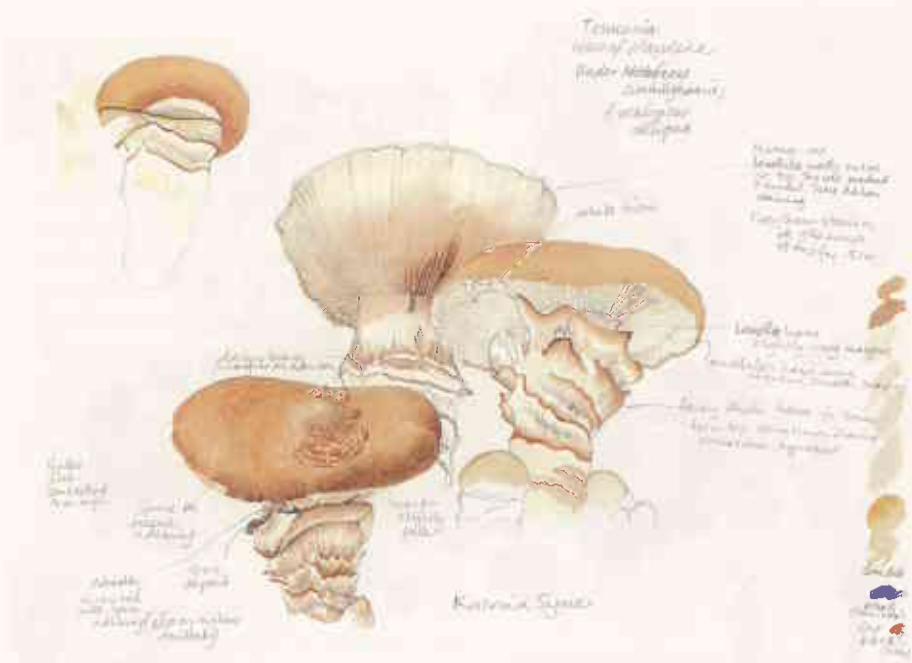
According to botanist Alex Chapman, of the Department of Conservation and Land Management's Western Australian Herbarium, this kind of collaboration has worked particularly well. Herbarium scientists get accurate, detailed illustrations for use in their taxonomic publications and the artist enjoys the challenge of creating something that's both meticulously detailed and a



*Stylidium humphreysii*  
triggerplant

found flowering on the bare red sand  
after a bush fire at Neal Junction  
in Great Victoria Desert. 11 May 2001  
Philippa Nikulinsky





beautiful work of art. Neither science, nor art, is compromised.

The artists met in September 1991, when the Art Gallery of Western Australia held the exhibition 'Wildflowers in Art' to complement three major wildflower conferences. This provided an introductory forum for exhibitors, six of whom later formed themselves into the Botanical Artists Group.

Most group members work in isolation and in a range of styles, while several specialise in particular areas or species and have staged exhibitions throughout Australia and overseas. They are:

**PATRICIA DUNDAS:** Orchid specialist, currently completing a revision of artwork for *WA Orchids*;

**RICA ERICKSON:** Historian. She was a pioneer in orchid, *Stylidium*, and *Drosera* studies;

**ELLEN HICKMAN:** Botanist, specialising in threatened flora. A book she illustrated with Professor John Pate of The University of WA recently won an award (in the USA) for the best scientific publication;

**PHILIPPA NIKULINSKY:** No particular speciality. Interested in anything nature based, but with a preference for desert

plants and rock survivors;

**MARGARET PIERONI:** *Dryandra* specialist. Currently, she has a book on *Verticordia* with The University of WA Press;

**KATRINA SYME:** Fungi. She also uses dyes made from fungi on a range of textiles.

The group's role model is Ferdinand Bauer.

"He travelled as a natural history artist with Flinders on *HMS Investigator* in 1801, painting Australian plants and animals," says lively nonagenarian Rica Erickson.

"His work is exquisite in its detail and in its artistry, which is why we regard him as our hero."

In the beginning, the group met in a social setting, with their common interest in art being the 'glue' that bound them. The group has recently celebrated its 10th anniversary with another major exhibition at the Kings Park Wildflower Festival, and its members continue to meet regularly to admire, encourage and stimulate each other's work.

Botanic Garden and Parks Authority Chief Executive Officer Steve Hopper is no stranger to botanic art and firmly believes that: "These talented women are world class, and take pride of place

## COURSES IN BOTANIC ART

The University of Newcastle, in New South Wales, offers courses that involve a scientific illustration component, and it is the only tertiary institution in Australia that does so. The courses are designed to enable participants to use a wide variety of mediums, techniques and styles to produce clear and accurate scientific illustrations suitable for publication.

The following courses are available:

- The Bachelor of Design (Visual Communication) degree offers a major in Plant and Wildlife Illustration) in which scientific illustration is one of the areas studied.
- The Bachelor of Design (Visual Communications) —Honours—the former Graduate Diploma in Art (Plant and Wildlife Illustration) program, involves a large component of scientific illustration and is available to science graduates.
- A Master of Design by Research degree is offered by the Faculty of Architecture, Building and Design, which may be studied through the Wildlife Illustration discipline.

The University's web address is:  
<http://www.newcastle.edu.au/department/fad/ds/illus/illusthp.htm>  
 and further course details can be acquired by email from Chris Sanders ([csanders@mail.newcastle.edu.au](mailto:csanders@mail.newcastle.edu.au)).

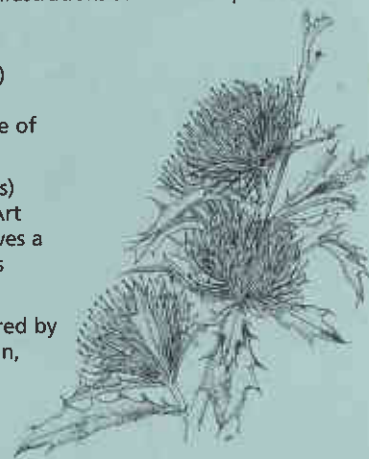


Illustration by Margaret Pieroni from *Leaf and Branch* by Robert Powell.

**Above left:** *Cortuarius* fungus from a collection at the Royal Botanic Gardens in Melbourne, with accompanying field notes.

**Above:** *Amanita* sp. from the floor of karri forest in WA's south-west. Illustrations by Katrina Syme



Above: The five subgenera of *Caladenia* from the cover of *Nuytsia* Vol 14, No. 1/2 (2001).

Illustration by Pat Dundas

among the best of botanic artists both past and present”.

Steve has witnessed the group’s popularity with the general public increase significantly with their presence at the Kings Park Wildflower Festival each spring. This is of particular satisfaction to the Department of Conservation and Land Management, which sponsors the group’s presence at this event and regularly calls upon the talents of its members.

The artwork of BAG members has featured in a number of the department’s publications, as well as those of other organisations. Some members contribute regularly to *NUYTSIA*—WA’s taxonomic botanic journal—while others contribute to a variety of other departmental publications, particularly the covers of *LANDSCOPE* magazine, which is also widely recognised for the quality of its photographic images from some of Australia’s finest wildlife photographers.

With advances in digital cameras making them affordable and more accurate in their representation, professional photographers are moving closer to accepting digital imaging as a valid medium for their work. The once mind-blowing special effects of 3D image modelling, which allows us to examine the intricate details of an object

## FLORAL EMBLEMS OF AUSTRALIA

Six of Australia’s most respected botanical artists have contributed superb original drawings of each State and Territory floral emblem and the national floral emblem. Complementing Dr Stuart Devlin’s design of the Centenary of Federation bi-metal coin, all nine original artworks are reproduced in the one Floral Emblems of Australia Art Piece. The piece also incorporates some of the earliest botanical illustrations of our flora (sourced from as far afield as Kew Gardens, London and the Florence Museum), as well as interesting information on their history and their status as official emblems.

The artists commissioned for the unique, limited edition art piece are Pat Dundas, Rica Erickson, Ellen Hickman, Philippa Nikulinsky (whose work regularly features on the covers of *LANDSCOPE*), Margaret Pieroni and Katrina Syme, all from the Botanical Artists Group.

The floral emblems depicted are the royal bluebell (ACT), waratah (NSW), Sturt’s desert rose (NT), Cooktown orchid (QLD), Sturt’s desert pea (SA), Tasmanian blue gum (TAS), common heath (VIC), red and green kangaroo paw (WA) and the golden wattle (Commonwealth).

This is the first time that the works of the Botanical Artists Group have been brought together in a single art piece. Only 100 of these special art pieces were commissioned, each in a magnificent and imposing frame incorporating the Centenary of Federation bi-metal, legal tender Australian coin. The six botanical artists have individually signed each piece, which are all hand numbered.

The work is a stunning display of Australian flora, featuring the skills of some of Australia’s most lauded botanical artists, and the world’s foremost coin designer.



Five of the members of the Botanical Artists Group, from left, Pat Dundas, Ellen Hickman, Katrina Syme, Philippa Nikulinsky and Rica Erickson, in front of the Floral Emblems of Australia Art Piece, on show at the recent Kings Park Wildflower Festival. Photo – Verna Costello

by turning it around on a computer screen, have become commonplace. The magic has begun to fade.

But even in this fast-advancing, technological age, we can still watch the botanical artist take up ‘a wand’, which is no more than a wooden stick with sable hair attached to one end, and with deft strokes of paint, create magic on a sheet of paper. The image that materialises both impresses the scientist with its accuracy and charms us all with its beauty. This art is truly the art of science.

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The authors wish to thank Alex Chapman of the WA Herbarium and the members of the WA Botanical Artists Group for their assistance with this article. They also acknowledge The Perth Mint for background information on the Floral Emblems of Australia Art Piece.



Winner of the 1998 Alex Harris Medal for excellence in science and environment reporting.

# LANDSCOPE



VOLUME SEVENTEEN, NUMBER 2, SUMMER 2001-2002

020432

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**Design and production:** Tiffany Aberin, Maria Duthie, Gooitzen van der Meer.

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**Subscription enquiries:** ☎ (08) 9334 0481 or (08) 9334 0437.  
 Colour Separation by Colourbox Digital.  
 Printed in Western Australia by Lamb Print.

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Published by the Department of Conservation and Land Management, Dick Perry Avenue, Kensington, Western Australia.

DEPARTMENT OF  
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*Conserving the nature of WA*



Thirteen years in the making, the Cape to Cape Track offers a unique view of WA's most popular national park. See page 28.



Karijini's new visitor centre provides a cultural and environmental focus point for visitors. See 'Karijini Calling' on page 10.



Dirk Hartog Island is our largest island. It has a fascinating history and a valuable biodiversity. Find out why on page 17.



'Landscape at the Heart' is an account of the first LANDSCOPE Expedition to the Carnarvon Range at the edge of the Little Sandy Desert. See page 40.



Does the delicate work of Western Australia's botanical artists have a place in the high-tech world of science? See page 23.

## COVER

Aboriginal names have always been part of Australia's history, and many of the well known names for Australian animals are in common use today. 'Ancient animals, ancient names' (page 35) makes a case for adopting more Aboriginal names for our native mammals. The brush-tailed phascogale, for example, was known to Nyoongar people as the 'wambenga'.

Cover illustration by Philippa Nikulinsky

